Project:
Magnetic Resonance Imaging Compatible Infusion Pump

Team Members:
1. Amanindera Ghotra—Team Leader
   Email: asghotra@wisc.edu
2. Can Pi—Communicator
   Email: cpi@wisc.edu
3. Prakash Rao—BWIG
   Email: prao@wisc.edu
4. Miguel Benson—BSAC
   Email: miguelbenson@wisc.edu

Advisor:
John G. Webster
UW Dept. of Biomedical Engineering
Phone: (608) 263-1574 or (608) 263-4660
Email: webster@engr.wisc.edu

Client:
George C. Newman, M.D., Ph.D.
UW Dept. of Neurology
Phone: (608) 263-9800
Email: newman@neurology.wisc.edu
Frank Hospod
UW Dept. of Neurology
Phone: (608) 262-5305
Email: hospod@neurology.wisc.edu

Date: 2-4-04 thru 2-10-04

Problem Statement: MRI compatible infusion pump for gadolinium and saline solutions has pumps that are syringe driven but limited in their sequence capability and in the amount each can hold. The client wants two new pumps that are programmable and can effectively control the infusion rates of gadolinium and saline independently without having to refill the syringes. New pumps will not only save client’s time, but it will also save money since refilling the syringes wastes a lot of gadolinium.

Restatement of Team Goals: We will finish PDS by end of this week and will brainstorm possible designs for new pumps.

Summary of Accomplishments: The PDS is finished and emailed to Dr. Newman’s technician, Frank. We have looked at the current pumps that exist in the market.

Individual Goals:
1. Aman Ghotra: Finish Progress Report 3; Look at current market designs; Think of a possible design
2. Can Pi: Keep in touch with Frank and Dr. Newman; make an appointment with Dr. Tompkins and Dr. Block; Think of a possible design
3. Prakash Rao: Post Progress Report 3; post pictures on website; Think of a possible design
4. Miguel Benson: inform us on BSAC meeting; Think of a possible Design

**Statement of Team Goals:** We will meet Dr. Tompkins, Dr. Block and Dr. Newman this week to get an idea as to how we should approach in making the designs. Also, we will try to have three possible designs sketched out by 2/15/03.

**Rough Project Schedule:**
1/23/04: Made teams and assigned roles
1/29/04: Meet our client
1/30/04: Develop PDS
2/13/04: Brainstorm possible designs
2/27/04: Evaluate Ideas and work on power point
3/05/04: Mid-Semester Presentation
3/12/04: Choose final design
3/12/04 – 4/23/04: Work on final design
4/23/04: Work on final power point and PDS
4/30/04: Poster Presentation

**Difficulties:** We are having difficulty getting some ideas down for possible designs. We hope to have this difficulty eliminated after meeting with Dr. Tompkins, Dr. Block and Dr. Newman.

**Activities (2-4-04 thru 2-10-04):**
Aman Ghotra: Progress Report 3; PDS (3 hours)
Can Pi: Contacted companies; helped with PDS (2.5 hour)
Prakash Rao: Started website; helped with PDS (2.5 hour)
Miguel Benson: Helped with PDS; looked for existing designs (1.5 hour)

**Running Total:**
Aman Ghotra: 6.5 hours
Can Pi: 5.0 hours
Prakash Rao: 6.0 hours
Miguel Benson: 3.5 hours